



## PLANT MATERIALS TECH NOTE

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### Review of CRP Native Grass, Forb, and Shrub Establishment

**Introduction:** Twenty two (22) CP-2, CP-10, CP-15, CP-25 Conservation Reserve Program (CRP) plantings, consisting of native grasses (warm & cool season), forbs, legumes and shrubs, were evaluated on 15 producers in six eastern Montana counties June 4 through 7, 2001. The purpose of the review was to ascertain whether our current Technical Guide recommendations are valid when establishing diverse native plant communities. Our observations tested the technical accuracy of Montana NRCS Technical Guide vegetative specifications.

An evaluation outline was developed to document location, producer, soils, rainfall, site preparation, planting date and method, seeding rate, weed infestation, plant health, and treatment response observations. The plantings were selected by field office personnel to sample site preparation and planting techniques to compare the results of establishing native species mixed seedings. Area specialists and field office personnel accompanied us to each site and assisted with the qualitative evaluations. The following is a synopsis of our observations and recommendations.

#### CRITICAL RECOMMENDATIONS:

- Winterfat and fourwinged saltbush can be successfully established from seed within grass and forb mixtures, **all other woody species must be seeded in separate rows.**
- Enhancement within existing crested wheatgrass stands requires burning or haying, multiple non-selective herbicide applications AND tillage, to germinate accumulated seed banks for crested wheatgrass control, provide for residue reduction for good seed/soil contact and maximize soil moisture storage.
- Alfalfa is competitive with warm and cool season grasses at the .5 pls lbs./acre rate. It should be established in alternate rows or diluted in mixture to .1 pls lbs./acre.
- Sainfoin is an excellent alternative to alfalfa because it is less competitive and more compatible to the slow establishing native species than alfalfa.
- Side-oats grama and switchgrass can be successfully established in mixtures with cool season grasses. Bluestems require an alternate row culture for successful establishment and persistence.
- Encourage seedling shrub transplants and weed barrier on small acreages of CP-25 signups, i.e. 10 acres, to promote better seedling survival and establishment.

## NOTEWORTHY OBSERVATIONS:

- Current, rose, chokecherry, snowberry was volunteering on some sites.
- Cheatgrass and wild oats infestations result in poor stands. They need to be controlled during site preparation and the CRP mixture should be spring planted following a non-selective herbicide application.
- CRP plantings should be delayed after a small grain crop to store two feet of soil moisture for successful weed control and stand establishment.
- Cereal grain chaff windrows should be spread to eliminate toxicity, reduce volunteer grain competition and provide for good seed soil contact.
- No woods rose plants were germinated or establishing from seed. Rose requires a 1-2 year cool-warm-cool stratification prior to germination.
- Broadleaf summer annual weeds in new seedings have little impact on stand establishment. However, weeds should be clipped or shredded to prevent re-seeding or nuisance to neighbors.
- Optimum Lewis flax rate is .05 pls lbs./acre.
- Haying and intensive grazing of **well-established** CRP stands improves plant vigor and health.
- Noxious weeds need to be controlled prior to planting and within established stands.
- Woody seedling transplant locations should be documented on plan map for future reference.



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